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0030

April 8, 1992

TO: Daron Haddock, Permit Supervisor

FROM: Priscilla Burton, Soils Reclamation Specialist

RE: Review of the Revised Conveyor Submittal, Utah Fuel Company, Skyline Mine, ACT/007/005-91-1, Folder #2, Carbon County, Utah

SUMMARY

Revisions of the proposal to construct 73 bent tower structures to support a conveyor along the steep slope adjacent to State Highway 264 were received on 4/15/92 and 4/24/92.

Utah Fuel Company has outlined a permitted corridor (beginning at the end of the presently disturbed cut slope) stretching down the canyon, adding 5.45 acres of permitted surface to the conveyor for a total of 14.3 permitted acres (Plate 3.2.3-3D and page 1-20 and 3-21). The 73 bent tower locations will disturb 0.3 acres of aspen and sagebrush ecotypes (Division calculations derived from information provided on page 3-64G).

The information received does not encompass all of the technical deficiencies identified in a previous memo on 2/10/92. These issues were discussed in meetings with Utah Fuel Co representatives on March 20, 1992 and April 15, 1992 and in a meeting with their consultant (Endangered Plant Studies, Inc) on April 14, 1992. Further information is to be obtained from the consultant's records concerning the soils in the proposed disturbed area.

Of present concern in this submittal are five issues:

1) The clean-up plan provides a strong commitment for only major spills.
2) The commitment to salvage topsoil is expressed, but directions concerning depth of salvage is not specified in the MRP or "Construction Plan."
3) The soil survey information must be updated for the new disturbance.
4) The "Construction Plan" indicates that 'spoil muck' will be spread out on the presently disturbed bench areas for use as growth medium during final reclamation.
5) The "Construction Plan" for removal of topsoil and excess spoil from the bent tower construction does not include segregation of the material at the waste rock site for use as cover.

ANALYSIS

120. Permit Application Format and Contents.

Proposal:

The submittal includes an update to Volume A-2.

Analysis:

Please submit an updated Table of Contents for Volume A-2.

Deficiencies:

1. Prior to creating new disturbance, the applicant must submit an updated Table of Contents for Volume A-2.

121.100. Contain current information, as required by R645-200, R645-300, R645-301 and R645-302.

Proposal:

A statement on page 3-24 indicates that there have been no water quality violations to date.

Analysis:

This statement is in error. Notice of Violation 92-37-3-1 was issued for water quality violations.

Deficiencies:

1. Prior to creating new disturbance, the applicant must remove inaccurate statements from page 3-24 of the MRP.

121.200. Be clear and concise; and

Proposal:

1. The MRP refers to an "intervisible" buffer zone sign on page 3-42.

2. On page 4-36 the MRP indicates that "revegetation analyses **have been** (emphasis added) conducted annually and reported to the regulatory authority." Actually, these annual evaluations were conducted from 1980 to 1985 (personal communication from K. Zobell).

3. Two statements on page 3-64G require clarification, "Average disturbance at these 11 locations is 500 ft^2 at five locations....At these five locations, the average disturbance is 660 ft^2."

4. A plan for clean up of spilled coal along the conveyor line is written on pages 3-20B and 3-20C. The plan discusses contingencies for the worst case scenario. A commitment to clean up within 24 hours a worst case spill located in a drainage is included. There does not appear to be any plan for clean up of coal fines along the undisturbed permitted ground unless a worst case scenario occurs.

5. The portal surface area (National Forest ground) was increased by 0.29 acres (page 2-98). The conveyor will add 5.24 permitted acres (Plate 3.2.3-3d-f) and 0.3 acres of actual disturbance (p 3-64G). The application provides plans for 0.58 acres (pg 4-8) of surface reclamation for the new disturbance. Acreages of disturbance are listed many times throughout the plan. There are some differences in the acreages on different pages. In the compliance section below, I have outlined the acreages described for each disturbance and the corresponding page number.

Analysis:

1. The meaning of the term "intervisible" is not clear.

2. The plan would be more readily understood if the wording on page 4-36 were changed to state that annual evaluations were conducted from 1980 to 1985.

3. The statements of page 3-64G concerning average tower disturbances, referred to above, requires clarification.

4. Pages 3-20B and 3-20C must contain a simple statement that coal spilled on topsoil within the permitted area of the conveyor will be cleaned up when it accumulates to a depth of 2".

5. Acreages described as disturbed or permitted in the submittal are listed according to ownership as well as location. The acreages listed on various pages are outlined below with those believed to be in error in bold:

PAGE	LOCATION	ACREAGE
1-19	all surface disturbance	62.03 ac
1-20	all surface facilities	**59.29** ac
1-20	disturbed, to be reclaimed	62.03 ac
1-20	all permitted acreage	65.33 ac
2-98	National Forest disturbed	37.55 ac
2-98	private ground disturbed	24.48 ac
2-98	total Nat'l For and Privat	62.03 ac
2-101	loss of habitat	62.03 ac
2-115	total disturbance	62.03 ac
2-127	total land area	**59.29** ac
3-21	conveyor permit area	14.27 ac
3-21	conveyor disturbed area	8.92 ac
3-64G	ASCA 8	1.82 ac
3-64G	ASCA 9	0.72 ac
3-64G	ASCA 10	6.04 ac
3-64G	ASCA 10a	0.34 ac
pg 2-11	reseeding Truss supports	0.58 ac
pg 3-67	total disturbed, permitted	65.33 ac
pg 4-8	overland conveyor reclam.	0.58 ac

Deficiencies:

1. Prior to creating new disturbance, the applicant must clarify the term "intervisible" buffer zone on page 3-42 of the MRP; indicate on page 4-36 of the MRP that annual evaluations **were conducted from 1980 to 1985**; and make the necessary corrections to the acreage figures listed on page 1-20, pg 2-127, and pg 3-64G.

2. Prior to creating new disturbance, the applicant must clarify the statements on page 3-64G of the MRP concerning the estimated average disturbance at 11 tower locations of 500 ft^2 and the average disturbance at 5 locations of 660 ft^2.

3. Prior to creating new disturbance, the applicant must expand the spill clean-up plan to include any accumulations of greater than 2 inches of coal fines within the permitted area of the conveyor.

140. Maps and Plans.

Proposal:

Vegetation and Soils map sheets were submitted with the application, along with the Overland Conveyor Foundation Plan Plates 3.2.3-3A-F. The latter also serves to indicate permit and disturbed area boundaries. The scale of Plates 3.2.3-3A-F is 1" = 80'.

The applicant has shown a 'disturbed and permit boundary' along the present cut slope and a permit boundary along the proposed additional length of the conveyor. The disturbed and permit area boundary varies from 25' (Plate 3.2.3-3C) to 150' wide (Plate 3.2.3-3A). The new permitted area is fairly consistent at a width of 50'(Plates 3.2.3-3D-F). Tower locations, reference areas, field trials and ASCA's are indicated on plates 3.2.3-3A-F.

14.27 total acres (pg 3-21) will be permitted for the conveyor of which 8.58 acres are already disturbed, and 0.34 additional acres will be disturbed during construction of the towers.

Analysis:

The soil survey map was calculated from the Eastings to be a scale of 1" = 100'. However, no scale is provided. The North direction is not indicated. The disturbed area boundaries are not included. Informational items that would be helpful on the soils maps include the location of the vegetation reference areas; SCS vegetation Practice and Trial areas; the present and proposed disturbed area boundaries; and the tower locations.

The accompanying Vegetation map sheets provides cut slope (CS) and cleared slope (AR) boundaries. The Overland Conveyor Foundation Plan Plates #3.2.3-3A-F provide a disturbed and permit area boundary. The boundaries indicated on the vegetation map and Plates 3.2.3-3A-F differ at several locations where the cut slope and the cleared slope extend outside of the permit boundaries. Discussions with Utah Fuel Co. personnel have revealed that the consultant's maps may not be accurate in this regard and only Plates 3.2.3-3A-F are

to be used for inspection and enforcement.

Deficiencies:

1. Prior to creating new disturbance, the applicant must revise the soils and vegetation sheets to include all the types of information that are set forth on U.S. Geological Survey of the 1:24,000 scale series.

2. Prior to creating new disturbance, the applicant must provide the disturbed area boundary and permit area boundary on the soils and vegetation map sheets and on the surface facilities maps; site the locations of the SCS Practice and Trial Experimental areas for the conveyor on the soils and vegetation map sheets as per R645-301-521.190.

221. Prime Farmland Investigation.

Proposal:

The subject of prime farmland determination is touched on by Dr. Sheldon D. Nelson, Soil Scientist, in a report submitted to Skyline Mines by the consulting firm, Endangered Plant Studies, Inc. (see Volume A-2 addendum). No prime farmlands were found. In addition, the MRP in Section 2.14 provides a Soil Conservation Service (SCS) letter of prime farmland determination for the surface facilities area of the permit. No prime farmlands were found, however the area evaluated is not delineated on a map.

Analysis:

Regulation R645-302-313 indicates that the SCS must be consulted for a prime farmland determination. Although the excessive slopes found in the location of the proposed conveyor will eliminate any possibility of prime farmland, the formality of consulting with the SCS must be complied with. Please provide the map mentioned in Section 2.14 to allow the Division to determine whether the SCS has been consulted concerning this additional disturbed area. This deficiency has been requested in the permit renewal document. This information is required prior to creating the new surface disturbance downstream from the present cut conveyor bench.

Deficiencies:

1. Prior to creating new disturbance, provide the map which accompanied the SCS prime farmland determination of Section 2.14.

222. Soil Survey.

Proposal:

A soil survey was conducted by Dr. S. Nelson for Endangered Plant Studies, Inc. (see Volume A-2 addendum). The narrative provides a general environmental description of the soils. Most are described as Mollisols (Borolls) which are deep soils developed in shrub-grass and/or aspen-spruce communities. Entisols exist on a smaller portion of the proposed disturbance.

Nine profiles were exposed for the survey. All soil pits were located on south facing exposures. The vegetation associated with the soil is listed.

Analysis of the "A", "B" and some "C" horizons are presented in Table 1. The soils are deep, (cobbly) sandy loams. For example, at site 5 on a 60% slope, the A and B horizon depth is 52 inches. Cobbles increase with depth. Values for pH vary from 5.8 to 7.6, averaging around the ideal 6.8 in the "A" horizon. Organic matter content in the "A" horizon is a low of 1.3% at site 5 to a high of 3.7% at site 7 (also the site of the 5.8 pH value), with a mean in the A horizon of 2.6%.

The reported black soil color of the A horizon along with the high organic matter values indicates that there may be an organic horizon that was not recorded in the consultant's report. (Field notes were not included with the consultant's report.)

The vegetation near the main mine site is Aspen or Spruce. At the end of the present cut-slope disturbance, the vegetation community changes from strictly Aspen to an Aspen, Sagebrush, Sagebrush/Gambel Oak mixed community. Although limited by species number, the Sagebrush is the most productive community for animal fodder @917.1 lbs/ac. production as measured in the reference areas (page 2-57). This community is also the predominant vegetation type to be disturbed by the proposed conveyor route (Chap 2, MRP). Established sagebrush reference area which appears to lie in the corridor of the proposed conveyor on Plate 2.7.1-2 is shown adjacent to the conveyor on Plate 3.2.3-3D.

Analysis:

Although the aspect of the soil pits is known, the slope was provided for only four of

nine pit locations. A general range of slope is provided in the SCS document of 1988 (Volume A-2). Here, the slope of the conveyor bench is described as 50 - 120%. Because the slope of the area in the proposed disturbance will affect the reclamation procedures to be used, further information is requested (please see additional comments under R645-301-240).

Vegetation associated with the soil pit does not always agree with the vegetation map included in the report. For instance, an Aspen community is described around Pit #4 in the soils report. Whereas the vegetation map shows a Spruce community.

The depth of the pits was not consistent from site to site. In some cases digging stopped at 13 inches with the "B" horizon and in others continued down to the end of the "C" horizon at 70 inches. Presentation of field notes describing pit profiles may aide in evaluating this discrepancy. Two of the pits (#6 and #9) which define shallow soils are located on the slope adjacent to the previously disturbed soils of the conveyor bench where the topsoil has been removed (see page 3-35 of the application). There is an "A" horizon in the locations of pit #6 and #9, because these are undisturbed slope locations.

Soil fertility evaluations performed for the SCS Plant Materials Center plant adaptation trials described as Trial #3 in the SCS Conveyor Bench Reclamation Plan (Volume A-2) must be made available to the Division.

Deficiencies:

1. Prior to creating new disturbances, the applicant must resolve the discrepancy between vegetation around soil pit #4 and the vegetation map.

2. Prior to creating new disturbances, the applicant must provide the slope at each soil pit location.

3. Prior to creating new disturbances, the applicant must provide field notes that describe pit profiles.

4. Prior to creating new disturbances, the applicant must indicate depth to bedrock for each site or describe the characteristics of each site which limited pit excavation depth, if rock was not encountered.

5. Prior to creating new disturbances, the applicant must provide the soil sampling information obtained for development of Trial #3 as described in the

SCS Conveyor Bench Reclamation Plan (Vol A-2 of the MRP).

223. Soil Characterization.

Proposal:

The soil was placed in the following categories: A = shallow, B = shale-sandstone shallow soils (clay loam), C = cobbly sandy loam, and D = grass\sage deep soils. Soil B, clay loam, was not sampled in any of the nine pits. This soil does not occur in the proposed new disturbance, therefore the requirement to sample soil B was dismissed during negotiations with Utah Fuel Co.

A set of soils map sheets was provided. The maps outline areas of soil categories as described by the accompanying consultant's work and provide locations of the soil pits.

Analysis:

This classification of soils aides in determining salvageable topsoil, but does not follow the standards of the National Cooperative Soil Survey. Excerpts from the SCS Carbon County Survey were included with the consultant's report, but no correlation was drawn between the soil types copied out of the survey and the soil descriptions provided in the report.

Most of the soil to be disturbed by tower construction is in category C = cobbly sandy loams with an average A horizon of 14" and an average combined A and B horizon of 43". Fourteen inches of topsoil (A horizon) is considered a desirable, deep topsoil. Sample locations 5 and 8 immediately below the existing conveyor bench had A horizons of 16" and 25", respectively. In fact the the holes which will be drilled within the first 2500' distance beyond the present conveyor cut will likely encounter the deepest topsoils. As discussed in the operation plan (R645-301-230) below, the topsoil encountered in this area will not likely be salvaged and segregated due to the difficulties entailed in salvaging and separating topsoil from 2' diameter holes on the steep side slopes. This material will, however, be taken to the Scofield Waste Rock Site where it could be put to good use as cover for the waste material.

The riparian area to be disturbed was surveyed and discussed in the Skyline Project Supplemental Soils Report, June 8, 1980, Vol A2 of the MRP. These soils are map unit 6: coarse-loamy, mixed Cumulic Cryoborolls and should yield 14" of A horizon topsoil. Towers which will be located on the adjacent slopes will probably fall in map unit 5: loamy-

skeletal, mixed Typic Cryoboralfs and should yield 8" of A horizon topsoil.

Deficiencies:

1. Prior to creating new disturbances, the applicant must provide a soil classification according to the standards of the National Cooperative Soil Survey.

2. Prior to creating new disturbances, the applicant must provide soil sample analysis and pit profile descriptions for all soils categorized and mapped.

230. Operation Plan.

Proposal:

The existing bench will not be extended for the additional towers. There will be 73 isolated disturbances as follows:

57 tower structures will each disturb 100 ft^2 or 5,700 ft^2 in all;
11 structures will each disturb 500 ft^2 or 5,500 ft^2 in all; and,
5 structures will each disturb 660 ft^2 or 3,300 ft^2 in all (Division calculations from information provided on page 3-64G). The total surface to be disturbed is therefore 14,500 ft^2 or 0.33 acres.

The operation plan includes excavation of a main and transverse truss holes that are 2 feet in diameter and approximately 20' deep (or down to competent rock). The 'spoil muck' excavated from holes drilled on the existing disturbed area will be cast onto the surface and graded to remain for final reclamation. 'Spoil muck' from holes drilled or dug in presently undisturbed areas will be removed from the site with a skip (see supplemental "Construction Plan".

At each location, the disturbed area will be reseeded and mulched and treated with either straw bales or a silt fence (page 3-64G). The newly disturbed areas will collectively will become Alternate Sediment Control Area 10a (0.34 acres). Straw bales and silt fence will be maintained until vegetation is established.

The previously disturbed area of the conveyor bench is described in ASCA's 8, 9, and 10 (a total of 6 acres). Treatment of these areas is with vegetated slopes, rock slopes,

strawbales and silt fences.

Analysis:

A commitment to salvage topsoil during construction of the 5 towers which will support the conveyor across Eccles Creek is present on page 5 of the "Construction Plan". Topsoil will be salvaged from each hole **dug** (emphasis added, sec 4.6.1, page 4-21). The depth of salvageable topsoil is not indicated for each tower, but could be calculated from the soil survey which accompanies this application and from other pertinent information in the MRP concerning topsoil salvage:

1. Page 4-21 assumes the topsoil depth to be approximately 15 inches under aspen and 8 inches under sagebrush.

2. On the average the soils lying within the area of proposed disturbance have an "A" horizon which is 14" deep (Division calculations from the 1991 Endangered Plant Studies report Vol A2).

3. A 1980 study of the soils at the loadout and the conveyor route, Skyline Project Supplemental Soils Report, June 8, 1980, Vol A2, suggests 14" of A horizon topsoil from the riparian zone and 8" of A horizon on the slopes of the lower conveyor route.

There is no commitment from the applicant to salvage any topsoil from the 57 other tower locations which will be drilled. The Division calculates that these additional locations amount to 5,700 ft^2 of surface disturbance (pg 3-64G). If one assumes that there is an average of 14" of topsoil available from these 57 locations (5,700 ft^2), then a yield of 246 yd^3 of topsoil would be gained. Although this quantity of topsoil would be desireable for stockpiling, the Division agrees that the logistics of topsoil salvage from isolated drill holes are difficult to justify and R645-301-232.400 would apply to these 57 disturbances totaling 5,700 ft^2 or 0.13 acres. The material will, however, be stored along with other excess spoil from the drill holes at the Waste Rock Storage Site. The Division requests that the storage of this material is kept isolated from the disposal site to be used as cover during final reclamation of the site.

The applicant has not demonstrated that the requirements of R645-301-233 have been fulfilled. The information could and should be presented in a more straight forward manner than in the present MRP. For instance, Table 2.11-1 of the application (page 2-115)

addresses the required topsoil replacement volumes. The calculations shown on page 2-115 in Table 2.11-1 are in error. The amount of cover calculated to be required is a low by 16,119 yd^3. Table 2.11-1 continues for several pages outlining potential salvageable material in each vegetation type. The summation of the table shows that 156,664 yd^3 of material is useable. The amount of topsoil actually in storage is not indicated by this table. The amount of topsoil actually stored is indicated in Table 4.3-1 in the bonding discussion.

The following calculations are derived from information presented in the plan. Table 4.3-1 indicates that the mine facilities has a topsoil pile that is 131,742 yd^3. The mine site soil can only be replaced on National Forest land (37.55 acres, page 2-98). This amount of material equates to 26 inches of cover within the Forest boundaries. The loadout facilities has a topsoil pile that is 35,589 yd^3. The loadout store of topsoil will be utilized for the remaining 24.48 acres (62.03 - 37.55 ac, pages 1-20 and 2-98), providing cover that is an average of 10.8 inches deep. Therefore, the Division concludes that there is not adequate topsoil to reclaim the loadout, waste rock and conveyor truss disturbed sites as planned.

'Spoil muck' which is to left permanently on the surface of the cut conveyor bench has not been characterized. The amount of material to be left may be as much as 2.3 yd^3 (Division calculations, given a core that is 2' X 20') around each hole. The material may be remain on the surface for final reclamation subject to the requirements of R645-301-224 and R645-301-233. Whether the material is suitable for plant growth, will be determined by field testing and evaluations of revegetation success as per the performance standards R645-301-352 and R645-301-353.

Placement of disturbed area markers should be accomplished prior to creating new disturbance. This was not indicated in the "Construction Plan." This is a performance standard and will result in a violation if these markers are not in place prior to construction.

Deficiencies:

1. Prior to creating new disturbances, the applicant must revise Table 2.11-1 to show correct mathematical calculations of the estimated topsoil requirement for the entire site.

2. Prior to approval, the applicant must commit to include in the field testing of reclamation techniques (contemporaneous reclamation), the graded 'spoil muck' which will remain on the cut slopes of the conveyor bench and commit to covering this spoil with topsoil if the evidence gathered during field testing proves that the spoil is not a suitable growth medium.

3. Prior to creating new disturbances, the applicant must provide a statement in the soils chapter 2.11 which defines the amount of topsoil stored in the two topsoil storage locations and demonstrate that adequate cover is available for reclamation cover in the National Forest and private lands given the cover requirements commited to within the plan.

4. Prior to creating new disturbance, the applicant must estimate the quantity of topsoil to be salvaged from the lower canyon areas. Please see deficiencies #1 and 2 under R645-301-232 below.

232. Topsoil and Subsoil Removal.

Proposal:

Topsoil will be salvaged from tower locations which are dug. The topsoil will be added to the stockpile at the Loadout. An estimate of the amount of topsoil to be salvaged is not provided.

On the average the soils lying within the area of proposed disturbance have an "A" horizon which is 14" deep (Division calculations from the 1991 Endangered Plant Studies report Vol A2).

A 1980 study of the soils at the loadout and the conveyor route, Skyline Project Supplemental Soils Report, June 8, 1980, Vol A2, indicates in the summary (page 42) that between two and four feet can be salvaged from beneath "aspen dominated soils and adjacent areas supporting grasses, elderberry and serviceberry."

Analysis:

Two reports done in 1980 and 1991 indicate that there is salvageable topsoil in the lower reaches of the canyon which will be disturbed. The plan does not provide an estimate of the amount of topsoil to be harvested or a precise depth which will be gathered. The Division requests that estimates of the available salvageable topsoil is determined prior to construction of the towers. It is critical that this information is relayed to the contractor prior to the start of construction and that this information is included in the construction plan.

Deficiencies:

1. Prior to creating new disturbances, the applicant must estimate the depth of topsoil salvage from the 5 tower locations in the Eccles Creek crossing and the 11 towers along the lower conveyor bench; include this estimated topsoil salvage depth in the "Construction Plan," and provide this information to the contractor prior to the start of construction.

2. Prior to creating new disturbances, the applicant must update page 3-35A of the MRP to state that topsoil was salvaged from the tower disturbances on the lower portion of the conveyor route and that topsoil and spoil material from the upper reaches of the conveyor disturbance were salvaged for use as cover at the Scofield Waste Rock Site.

234. Topsoil Storage.

Proposal:

Topsoil will be added to the Loadout storage pile.

Analysis:

The applicant is in compliance. The additional topsoil stored must be provided to the Division after the completion of the project.

Deficiency:

1. Prior to creating new disturbances, the applicant must commit to updating Chapter 2.11 with information on total topsoil and cover material (see discussion above under R645-301-232) salvaged and stored from the construction of the conveyor towers.

240. Reclamation Plan.

Proposal:

The Applicant in consultation with the SCS has developed a revegetation plan for cut slopes of the conveyor bench. This plan is presented in Vol A-2 and summarized on pages 4-36, 4-36A and 4-37. Final reclamation calls for leaving the bench cut and establishing

vegetation to reduce erosion on the outslopes using the practices determined through experimentation to be the most successful. There will be no replacement of topsoil on 8.34 acres of the conveyor bench (page 2-115, Table 2.11-1).

The anticipated new disturbance is in the locations of the 73 towers, 0.34 acres. The trusses and two feet of concrete will be removed and replaced with topsoil for final reclamation. This will require 1,871 yd^3 of topsoil (page 2-115, Table 2.11-1). The reclamation plan includes an area of 0.58 ac (slightly larger than the expected disturbance).

The proposed conveyor disturbance will be revegetated according to the MRP, Section 4.71 and 4.72. The reclamation plan discussed in chapter four is based on the final slope configuration. Slopes from ½h:1v down to 2h:1v will have shrubs hand planted at 1 meter intervals. These slopes will be interseeded by the species according to aspect, using hydroseeding techniques. Seeding will be followed by mulching with ½ to 1 ton/ac straw chemically tackified or crimped. Slopes of 1.5h:1v or greater will not receive topsoil, rather basins will be dug in which topsoil is placed for shrub planting. Hydromulch will be used on the untopsoiled slopes between these basins. Finally, rocks will be placed at the base of rock cuts to enhance the natural look of the reclamation. Specifics may change for the conveyor bench and slopes dependent upon the results of the the field testing which is ongoing.

Analysis:

A commitment to report annual monitoring evaluations in the Annual Report is found on page 4-36A. The statement does not make clear what will be monitored annually. The Division requests this clarification.

Seeding, mulching, fertilizing and monitoring costs were noted to have decreased slightly on pages 4-9A and 4-9B on Table 4.2-1 as a result of the new conveyor design.

Deficiencies:

1. Prior to creating new disturbances, the applicant must further clarify on page 4-36A what experimental practices will be evaluated for inclusion in the Annual Report and in what years?

RECOMMENDATIONS

Several deficiencies remain to be addressed from the previous technical deficiency memo. New deficiencies have been outlined resulting from new information presented with the most recent submittal. Utah Fuel Co. is anxious to begin construction of this project. Approval is recommended for activity on the existing conveyor bench after deficiency #2 listed under R645-301-230 is resolved. The deficiencies which must be addressed prior to granting approval for construction to begin on the conveyor bench are prefaced with "prior to approval."

Approval to create new disturbed area is recommended after all other deficiencies are resolved. Those deficiencies that must be addressed prior to construction on presently undisturbed slopes have been prefaced with "prior to creating new disturbances."

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